SHARP SERVICE MANUAL

S3531QT-25ZW/

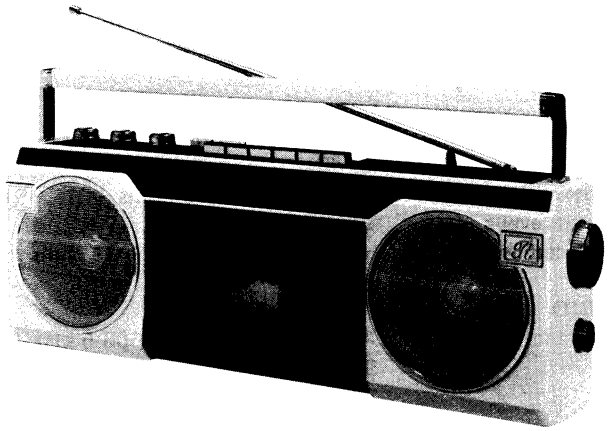

PHOTO: QT-25Z(W)

QT-25Z(W)
QT-25Z(R)

In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

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SHARP CORPORATION

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

GENERAL

Power source:	AC 110 V – 127 V/220 V – 240 V 50/60 Hz DC 9V (UM/SUM-2 or R14 type x 6)
Output power:	MPO; 7.2 W (3.6W + 3.6W) (AC operation) RMS; 4.6 W (2.3 W + 2.3 W) (DC operation, 10% distortion) PMPO; 14 W (7 W + 7 W) (AC operation)
Semiconductors:	5 ICs 1 Transistor 10 Diodes 2 LEDs
Dimensions:	Width; 402 mm (15-13/16") Height; 137 mm (5-7/16") Depth; 81 mm (3-3/16")
Weight:	1.9 kg (4.19 lbs.) without batteries

TAPE RECORDER

Tape:	Compact cassette tape
Frequency response:	50 Hz – 10,000 Hz
Signal/noise ratio:	36 dB
Input impedance:	External mic; 600 ohms
Output level and loaded impedance:	Headphones; 8 ohms – 32 ohms

RADIO

Frequency range:	AM; 526.5 kHz – 1606.5 kHz SW_1; 2.3 MHz – 7.3 MHz SW_2; 7.3 MHz – 22 MHz FM; 87.6 MHz – 108 MHz

SPEAKERS

Speakers:	9 cm (3-1/2") full-range speaker x 2

Specifications for this model are subject to change without prior notice.

NAMES OF PARTS

1. Volume Control
2. Balance Control
3. Tone Control
4. Function Selector
5. FM Mode Selector
6. Pause Button
7. Stop/Eject Button
8. Fast Forward Button
9. Rewind Button
10. Play Button
11. Record Button
12. Band Selector
13. Tuning Control
14. Fine Tuning
15. Cassette Compartment
16. Digital Tape Counter
17. FM Stereo Indicator
18. Power Indicator
19. FM/SW Telescopic Rod Antenna
20. Built-in Microphone
21. External Microphone
22. Headphones Socket
23. AC Power Supply Socket
24. Battery Compartment

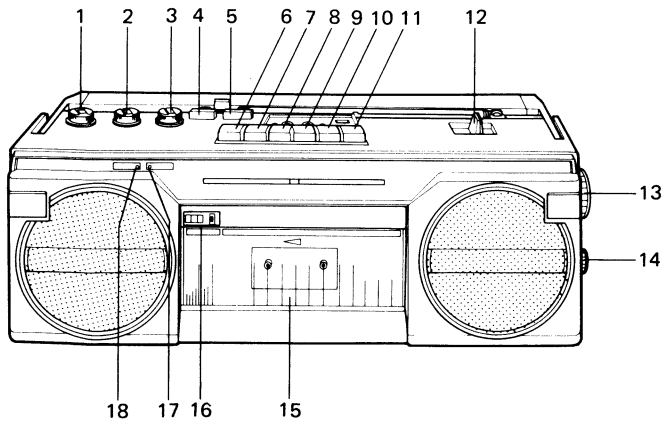


Figure 2–1

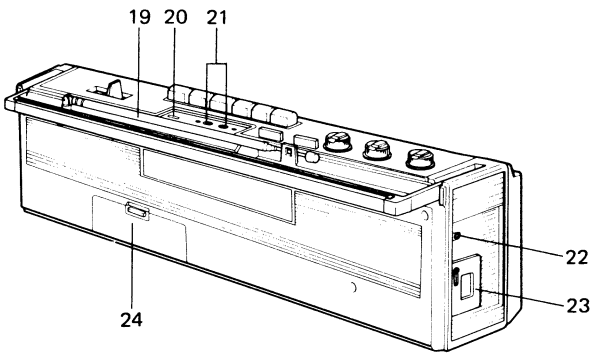


Figure 2–2

DISASSEMBLY

Caution on Disassembly
Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep its safety and excellent performance:

1. Take cassette tape out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit and remove the batteries from the unit.
3. Take off nylon bands or wire holders where they need be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Front Cabinet	1. Knob . . . . . (A)x2 2. Battery compartment lid . . . . . (B) 3. Screw . . . . . (C)x6 4. Loosen the screw . . (D) 5. Open the cassette holder . . . . . (E) 6. Socket . . . . . (F)x1	3–1 3–2
2	Mechanism Block	1. Tape counter drive belt . . . . . (G)x1 2. Screw . . . . . (H)x2 3. Socket . . . . . (I)x2	3–3
3	Main P.W.B.	1. Knob . . . . . (J)x3 2. Tip . . . . . (K)x1 3. Screw . . . . . (L)x8 4. Washer . . . . . (M)x1 5. Spring . . . . . (N)x1 6. Wire holder . . . . . (O)x1	3–4

* Set the mechanism in such a way as that the record/playback selector lever is positioned as shown in Fig. 3–5.

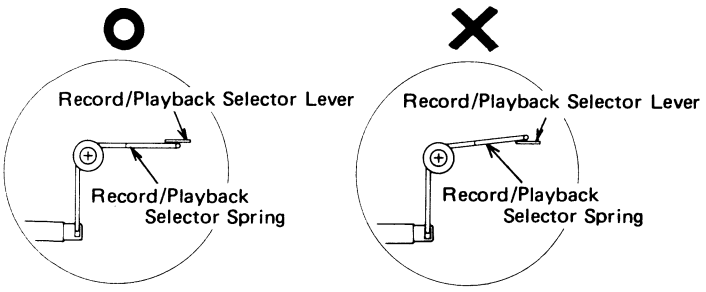


Figure 3–5

VOLTAGE SELECTION

Before operating the unit on mains, check the preset voltage. If the voltage is different from your local voltage, adjust the voltage as follows: Slide the AC power supply socket cover by slightly loosing the screw to the visible indication of the side of your local voltage.

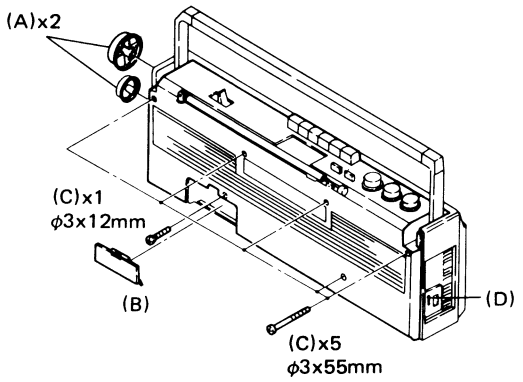


Figure 3–1

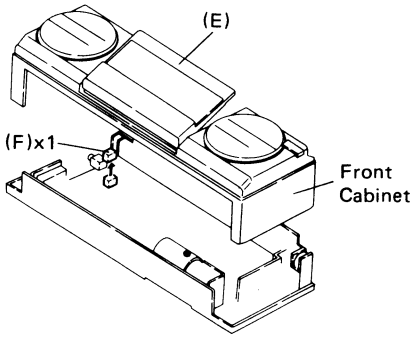


Figure 3–2

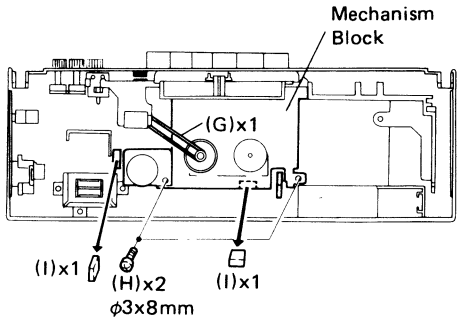


Figure 3–3

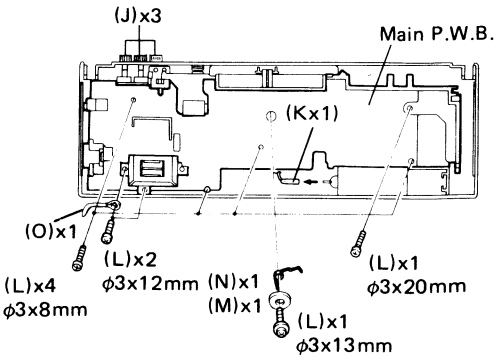


Figure 3–4

STRINGING OF DIAL CORD

1. Turn the drum fully in the direction A shown in Fig. 4-1 and stretch its cord over the parts in the numerical order.
2. The turn the tuning control shaft fully in the direction B shown in Fig. 4-1 and fix its pointer as shown in Fig. 4-2.

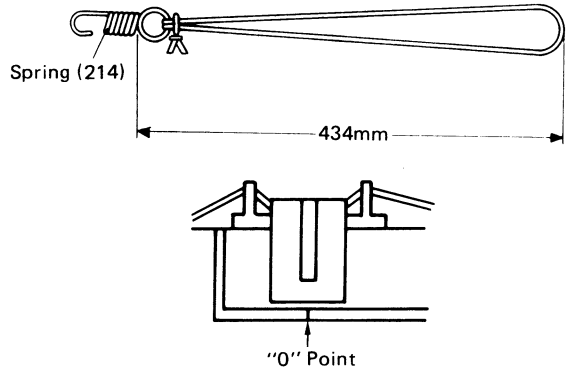


Figure 4–2

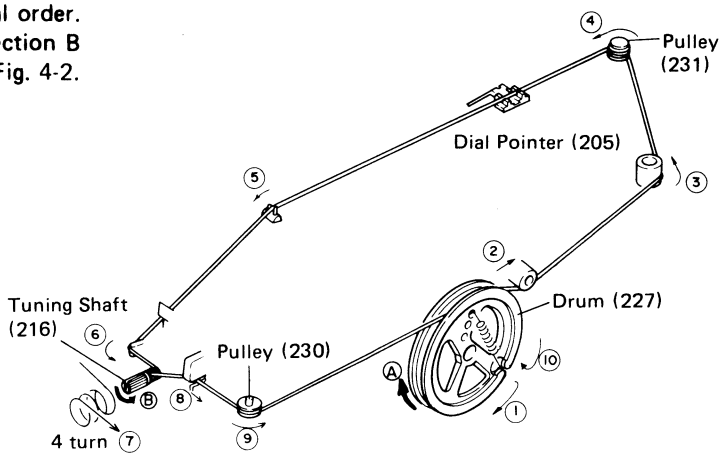


Figure 4–1

MECHANICAL ADJUSTMENT

ITEM	USING JIG	ADJUSTMENT POINTS	REMARKS (CHECK)
Driving power	Tape tention megurering cassette TW-2412	—	More than 150 g
Torque	Torque meter Play TW-2111 Fastforward TW-2231 Rewind TW-2231	—	(Play: 30~60 g-cm) (Fastforward : 80~140 g-cm) (Rewind : 80~140 g-cm)
Azimuth	Test tape MTT-113C	Azimuth adjusting screw	Sine waveform attains the maximum.
Tape speed	Test tape MTT-111	Variable resistor on motor	3,020 ± 20 Hz

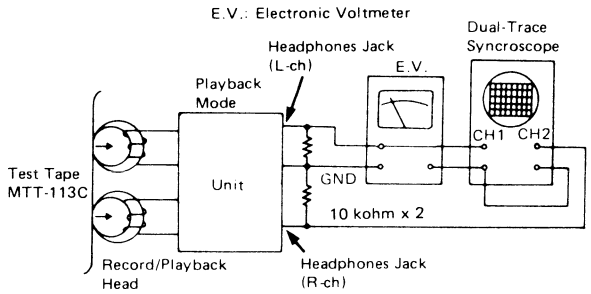


Figure 4–3 AZIMUTH

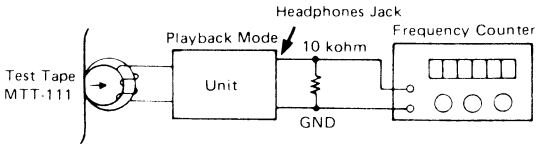


Figure 4–4 TAPE SPEED

TEST TAPES FOR MEASUREMENT

TORQUE METER FOR COMPACT CASSETTE		
MODEL	MEASUREMENT RANGE	APPLICATION
TW-2111	10 – 100 g-cm	Normal : Playback torque
	1.5 – 10 g-cm	Normal : Back tension
TW-2121	10 – 100 g-cm	Reverse : Playback torque
	1.5 – 10 g-cm	Reverse : Back tension
TW-2231	30 – 200 g-cm	Fast-forward, Rewind torque
TW-2412	0 – 300 g	Normal : Driving power
TW-2422	0 – 300 g	Reverse : Driving power

COMPACT CASSETTE TYPE			
TITLE	MODEL	FREQUENCY/ LEVEL	APPLICATION
FLUTTER	MTT-111	3 kHz, –10 dB	Tape speed, Wow and flutter check
AZIMUTH	MTT-113 MTT-113C MTT-114	6.3 kHz, –10 dB 8 kHz, –10 dB 10 kHz, –10 dB	Head azimuth adjustment
DISTORTION	MTT-118	1 kHz, –10 dB	Distortion check level adjustment
DOLBY LEVEL CALIBRATION	MTT-150	Dolby B-Type Tone 200 nwb/m	Dolby NR B-type level adjustment
BLANK	MTT-502	—	Record frequency check

CIRCUIT ADJUSTMENT (AUDIO SECTION)

SETTING POSITION OF SWITCH AND KNOB	• Volume control: Maximum • Balance control: Center • Tone control: Center • Function selector switch: Tape		
ITEM	**INPUT**	**ADJUST-MENT POINT**	**REMARKS (CHECK)**
PLAYBACK AMPLIFIER SENSITIVITY	Test tape MTT-118	———	(1.35 V)

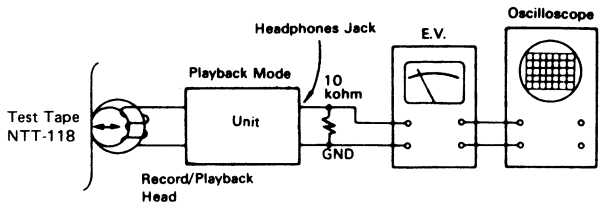


Figure 5–1 PLAYBACK AMPLIFIER SENSITIVITY

CIRCUIT ADJUSTMENT (TUNER SECTION)

AM IF/RF ADJUSTMENT

SIGNAL GENERATOR		400 Hz, 30%, AM modulated			
STEP	**TEST STAGE**	**FRE-QUE-NCY**	**DIAL POINTER SETTING**	**AD-JUST-MENT**	**REMARKS**
AM IF					
1	IF	455 kHz	High frequency	T3	Adjust for best "IF" curve.
AM RF					
2	Band coverage	510 kHz	Lowest frequency	L6	Adjust for maximal output.
3		1650 kHz	Highest frequency	TC6	
4	Repeat steps 2 and 3 until no further improvement can be made.				
5	Tracking	600 kHz	600 kHz	L4	Adjust for maximal output.
6		1400 kHz	1400 kHz	TC5	
7	Repeat steps 5 and 6 until no further improvement can be made.				
SW1 RF					
8	Band coverage	2.25 MHz	Lowest frequency	L7	Adjust for maximal output.
9		7.4 MHz	Highest frequency	TC4	
10	Repeat steps 8 and 9 until no further improvement can be made.				
11	Tracking	2.6 MHz	2.6 MHz	L4	Adjust for maximal output.
12		6.0 MHz	6.0 MHz	TC3	
13	Repeat steps 11 and 12 until no further improvement can be made.				
SW2 RF					
14	Band coverage	7.2 MHz	Lowest frequency	L8	Adjust for maximal output.
15		22.5 MHz	Highest frequency	TC8	
16	Repeat steps 14 and 15 until no further improvement can be made.				
17	Tracking	8.5 MHz	8.5 MHz	L5	Adjust for maximal output.
18		19 MHz	19 MHz	TC7	
19	Repeat steps 17 and 18 until no further improvement can be made.				

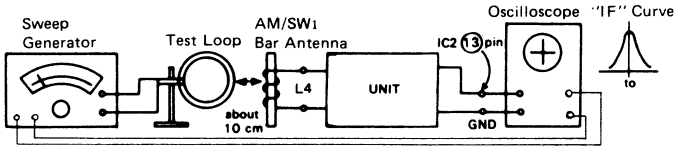


Figure 5–2 AM IF

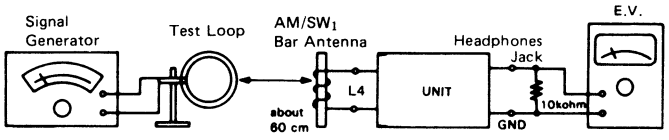


Figure 5–3 AM RF

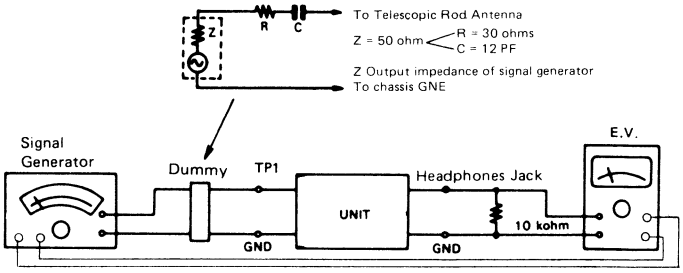


Figure 5–4 SW1 /SW2

Note on RF Adjustment

- If AM RF and SW1 RF adjustments are carried out in condition that the main P.W.B. is removed from the rear cabinet, the tracking error occurs after assembling due to an influence of the top decoration plate of the rear cabinet. So, please perform their adjustments in condition that the main P.W.B. is set in the rear cabinet.
- Please perform the SW1 RF adjustment while detaching the rod antenna from the main P.W.B.

FM IF/RF ADJUSTMENT

SWITCH POSITION			FM mono		
SIGNAL GENERATOR			400 Hz, 30%, FM modulated		
STEP	TEST STAGE	FRE-QUE-NCY	DIAL POINTER SETTING	AD-JUST-MENT	REMARKS
1	IF	10.7 MHz	High frequency	T1	1. Using a minus driver, turn the core of T2 counter-clockwise before taking it out of this bobbin. 2. Adjust for best "IF" curve.
2	Detection			T2	Adjust for best 'S" curve.
3	Repeat steps 1 and 2 until no further improvement can be made.				
4	Band coverage	87.1 MHz	Lowest frequency	L3	Adjust for maximal output.
5		109 MHz	Highest frequency	TC2	
6	Repeat steps 4 and 5 until no further improvement can be made.				
7	Tracking	88 MHz	88 MHz	L2	Adjust for maximal output.
8		108 MHz	108 MHz	TC1	
9	Repeat steps 7 and 8 until no futrher improvement can be made.				

VCO FREQUENCY ADJUSTMENT

SIGNAL GENERA-TOR	400 Hz, 30%, FM modulated (mono signal)		
FREQUENCY	DIAL POINTER SETTING	AD-JUST-MENT	REMARKS
FM mono position		FM stereo position (unmodulated)	
98 MHz at 54 dB	98 MHz	VR1	Adjust for 19.00 kHz ± 200 Hz.

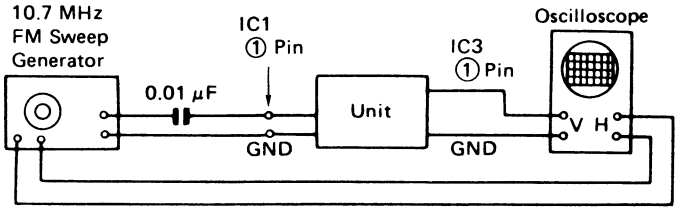


Figure 6–1 FM IF

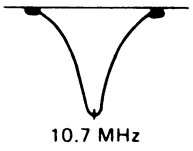


Figure 6–2 IF CURVE

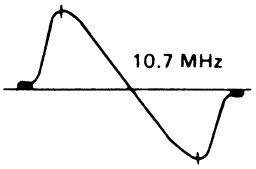


Figure 6–3 S CURVE

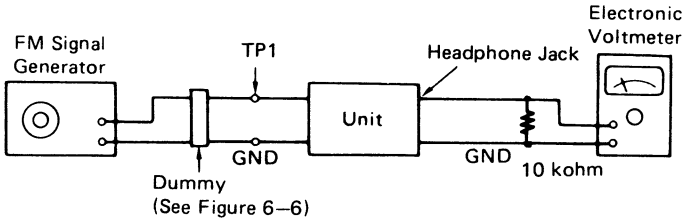


Figure 6–4 FM RF

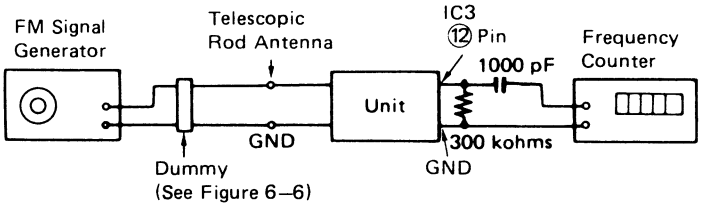


Figure 6–5 VCO FREQUENCY

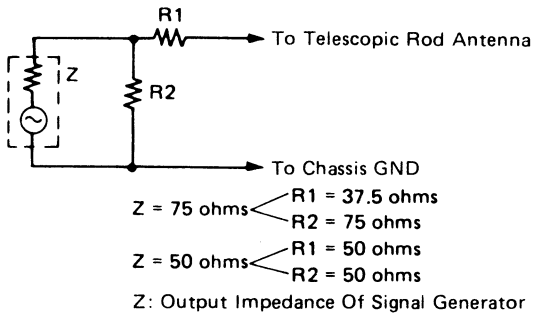


Figure 6–6 FM DUMMY

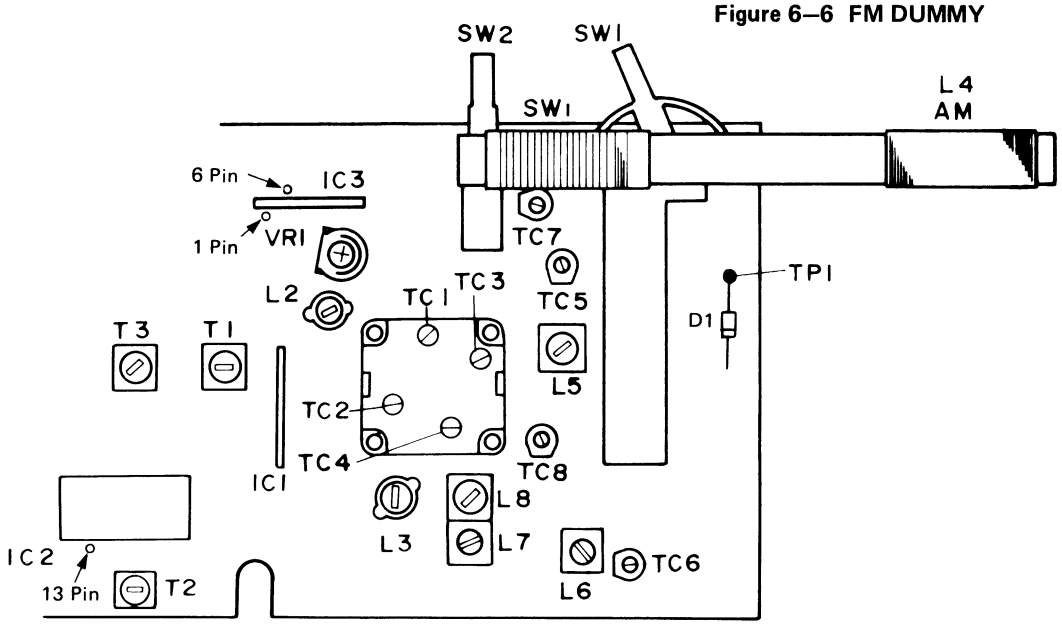


Figure 6–7 ADJUSTMENT POINTS

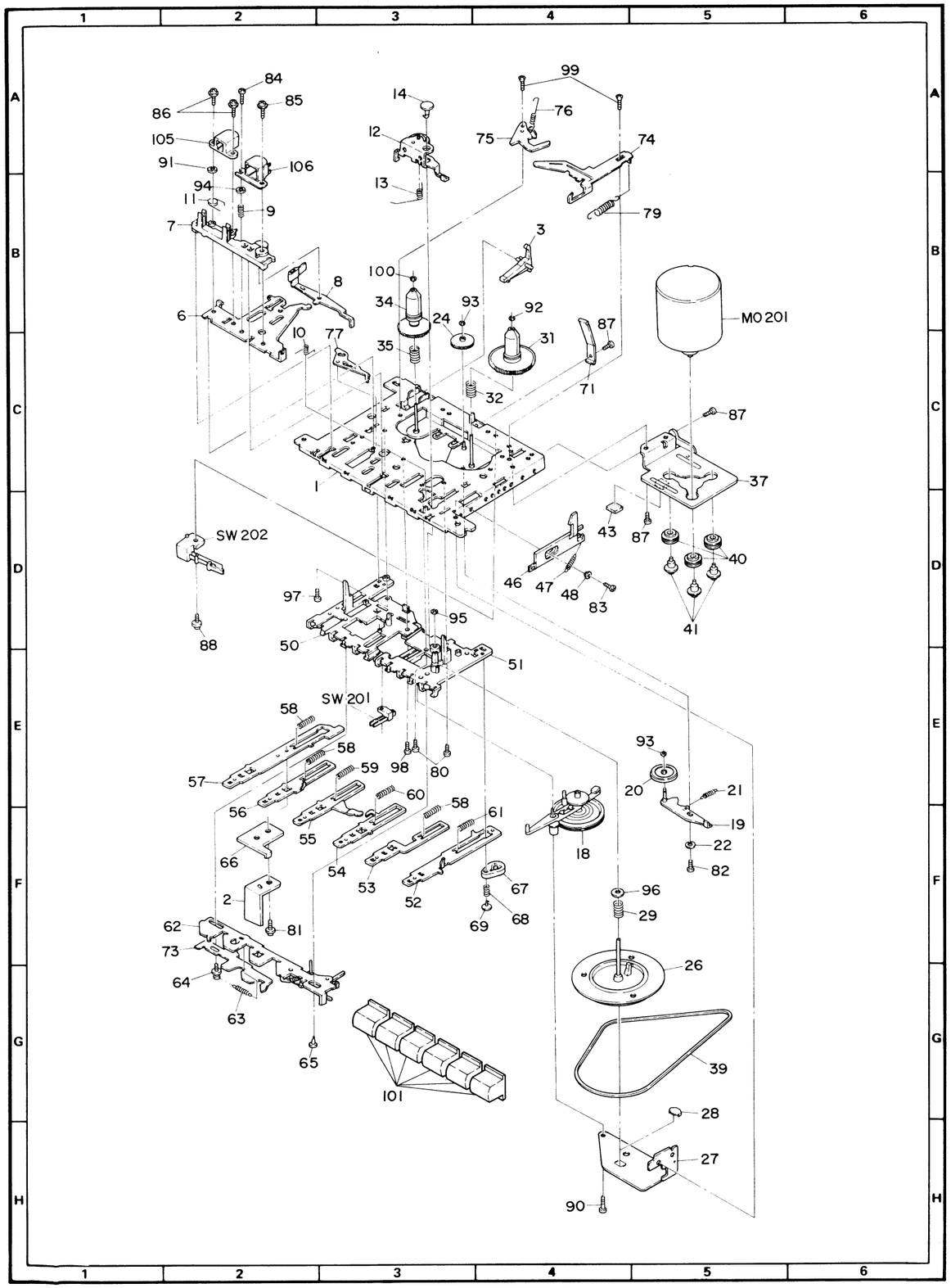


Figure 7 MECHANISM EXPLODED VIEW

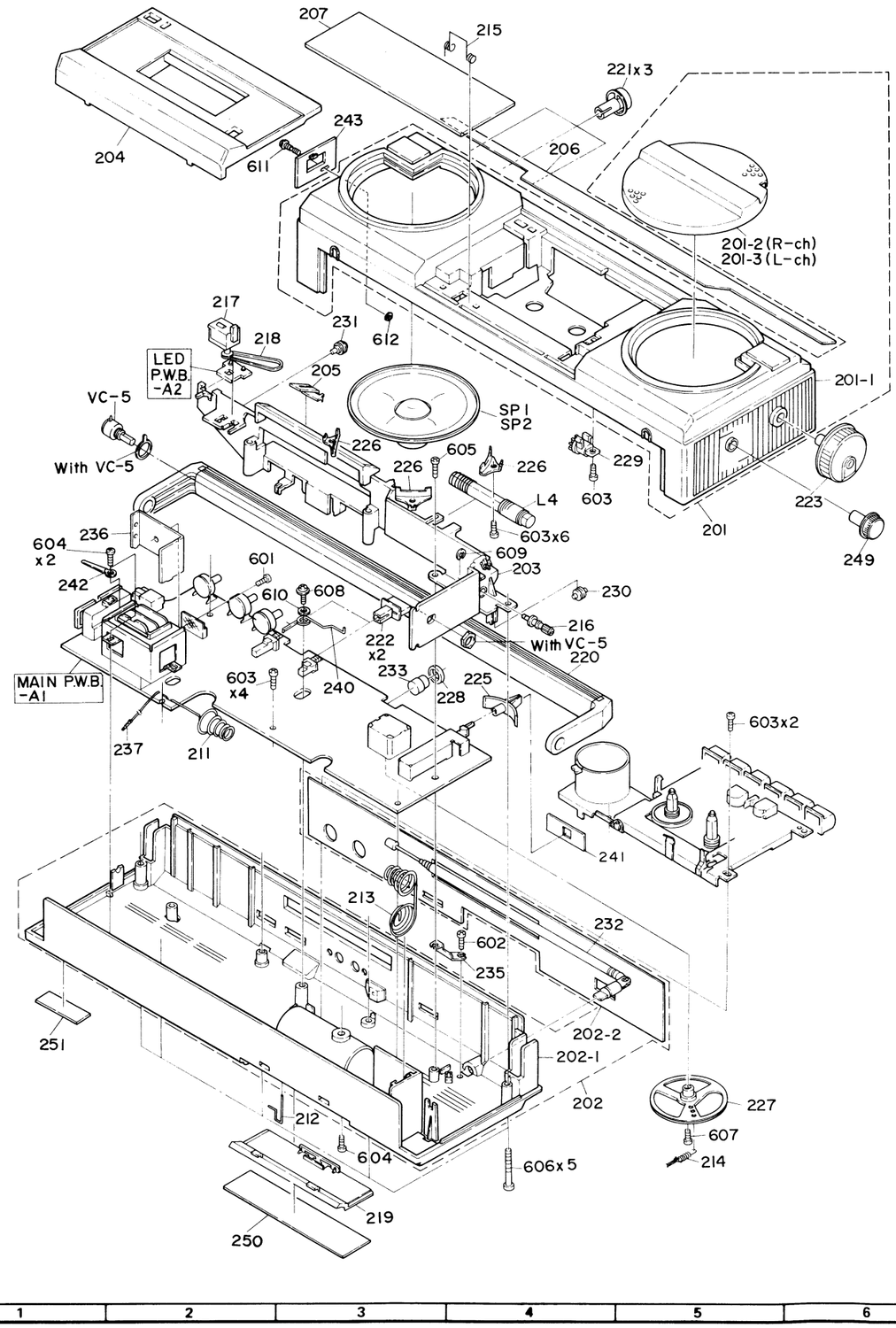
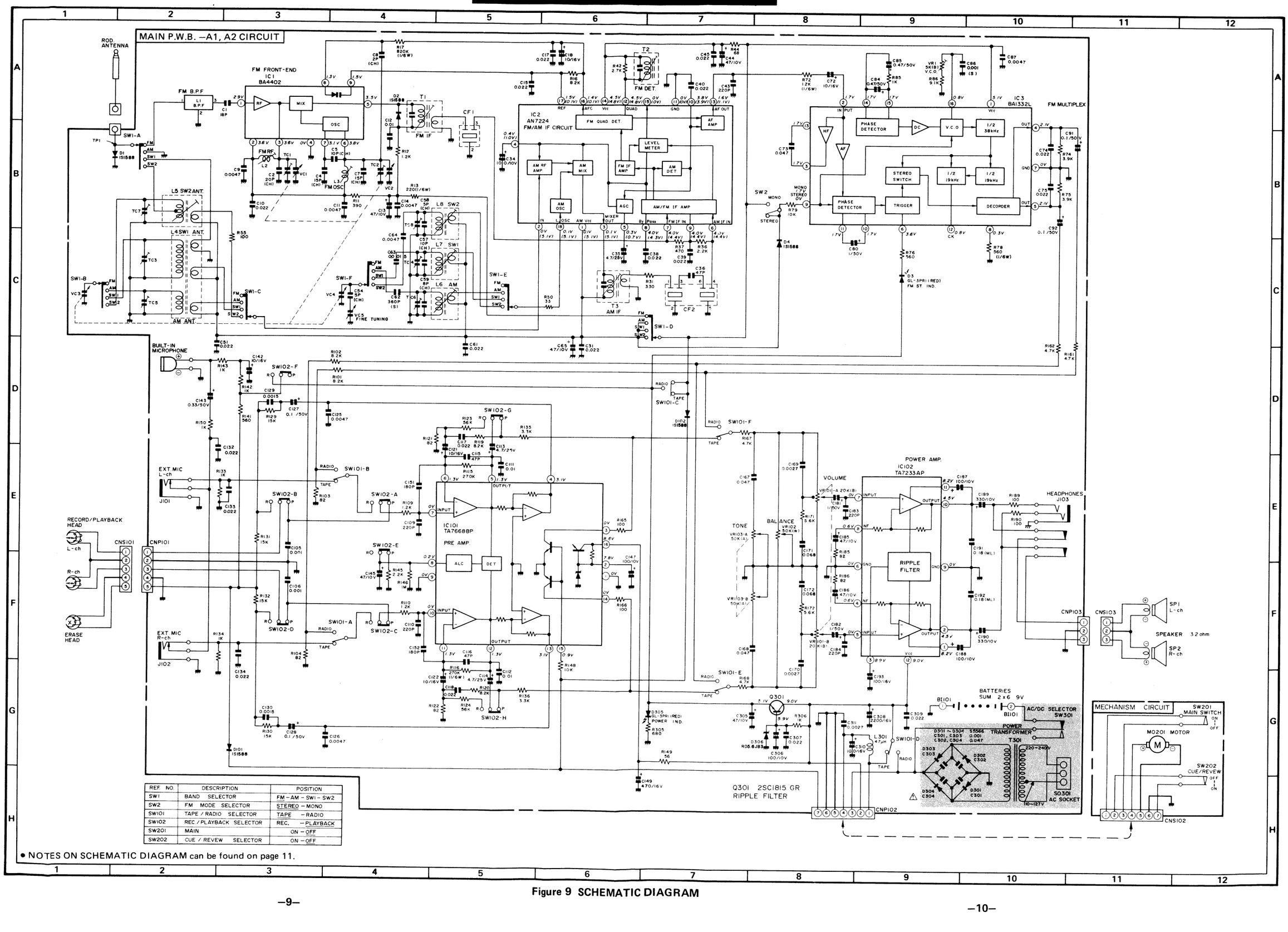


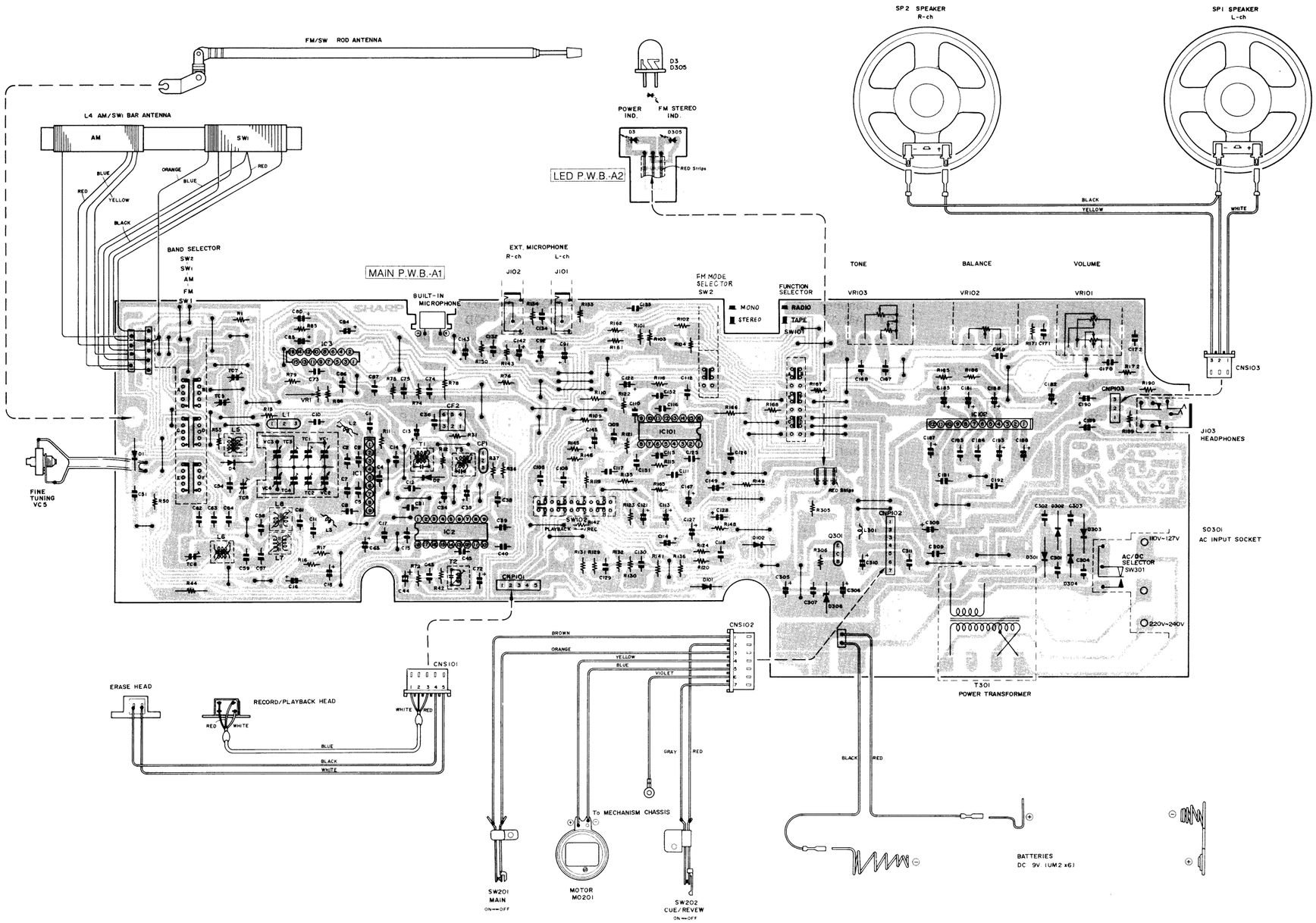
Figure 8 CABINET EXPLODED VIEW



REF. NO.	DESCRIPTION	POSITION
SW1	BAND SELECTOR	FM – AM – SW1 – SW2
SW2	FM MODE SELECTOR	STEREO – MONO
SW101	TAPE / RADIO SELECTOR	TAPE – RADIO
SW102	REC / PLAYBACK SELECTOR	REC. – PLAYBACK
SW201	MAIN	ON – OFF
SW202	CUE / REVEW SELECTOR	ON – OFF

• NOTES ON SCHEMATIC DIAGRAM can be found on page 11.

Figure 9 SCHEMATIC DIAGRAM



NOTES:

- Resistor:
  To differentiate the units of resistors, such symbols as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbols is ohm-type resistor. Besides, the one with "Fusible" is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-microfarad and the unit of the capacitor without such a symbol is microfarad.
  (CH), (RH): Temperature compensation
  (P.P.): Polypropylene type
  (ML): Mylar type
- Parts marked with "⚠" (▭) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.
- The indicated voltage in each section is the one measured by electronic voltmeter between such a section and the chassis with no signal given.
  ( ): AM mode
  Marking, except for ( ): FM mode
- Schematic diagram and wiring side of P.W. Board for this model are subject to change for improvement without prior notice.

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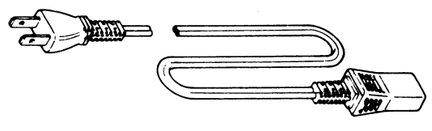	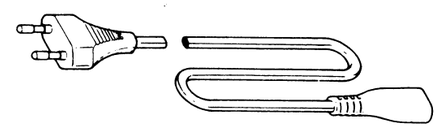

Figure 11 WIRING SIDE OF P.W.BOARD

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

NOTE:
Parts marked with "△" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF.NO.	PART NO.	DESCRIPTION	CODE
		INTEGRATED CIRCUITS	
IC1	VHiBA4402//-1	FM Front-End, BA4402	AF
IC2	VHiAN7224//-1	FM IF/AM Circuit, AN7224	AH
IC3	VHiBA1332L/-1	FM Multiplex, BA1332L	AG
IC101	VHiTA7668BP-1	Pre Amp, TA7668BP	AK
IC102	RH-iX1267AFZZ	Power Amp, TA7233AP	AK
		TRANSISTOR	
Q301	VS2SC1815GR-1	Silicon, NPN, 2SC1815 GR	AB
		DIODES	
D1	VHD1S1588//-1	Silicon, 1S1588	AA
D2	VHD1S1588//-1	Silicon, 1S1588	AA
D3	VHPGL3PR1//-1	LED, Red, GL-3PR1	AC
D4	VHD1S1588//-1	Silicon, 1S1588	AA
D101	VHD1S1588//-1	Silicon, 1S1588	AA
D102	VHD1S1588//-1	Silicon, 1S1588	AA
△ D301	VHDS5566G//-1	Silicon, S5566G	AB
△ D302	VHDS5566G//-1	Silicon, S5566G	AB
△ D303	VHDS5566G//-1	Silicon, S5566G	AB
△ D304	VHDS5566G//-1	Silicon, S5566G	AB
D305	VHPGL3PR1//-1	LED, Red, GL-3PR1	AC
D306	VHERD5R6JB3-1	Zener, 5.6V/400mV, RD5.6JB3	AB
		COILS	
L2	RCiLB0672AFZZ	FM RF	AC
L3	RCiLB0703AFZZ	FM Oscillator	AC
L4	RCiLA0768AFZZ	Bar Antenna, SW_1/AM	AM
L5	RCiLA0556AFZZ	SW_2 Antenna	AD
L6	RCiLB0623AFZZ	AM Local Oscillation	AC
L7	RCiLB0624AFZZ	SW_1 Oscillator	AC
L8	RCiLB0625AFZZ	SW_2 Oscillator	AC
L301	RCiLF0014AGZZ	47 μH, Choke	AC
		TRANSFORMERS	
T1	RCiLi0157AFZZ	FM IF	AC
T2	RCiLi0312AFZZ	FM Detector	AC
T3	RCiLi0310AFZZ	AM IF	AC
△ T301	RTRNP1028AFZZ	Power	AQ
		FILTERS	
CF1	RFiLA0085AFZZ	Ceramic, AM IF, 455 kHz	AE
CF1	RFiLF0106AFZZ	Ceramic, FM IF, 10.7 MHz	AC
CF3	RFiLF0111AFZZ	FM Band Pass Filter	AC
		CONTROLS	
VC5	RVC-Z0056AFZZ	Fine Tuning	AE
VC1~4	RVC-R0083AFZZ	Variable Capacitors, Tuning With Trimmers: TC1; FM RF Trimmer TC2; FM Oscillation Trimmer **TC3; AM Antenna Trimmer** **TC4; AM Oscillation Trimmer**	AN
TC1~4			
TC5	RTo-H1072AFZZ	Trimmer	AC
TC6	RTo-H1072AFZZ	Trimmer	AC
TC7	RTo-H1072AFZZ	Trimmer	AC
TC8	RTo-H1072AFZZ	Trimmer	AC
VR1	RVR-M0390AFZZ	5 kohms(B)	AB
VR101	RVR-B0309AFZZ	20 kohms(B), Volume Control	AH
VR102	RVR-Z0204AFZZ	50 kohms(W), Balance Control	AH
VR103	RVR-A0198AFZZ	50 kohms(A), Tone Control	AH
		ELECTROLYTIC CAPACITORS (Unless otherwise specified electrolytic capacitors are ±20% type.)	
C13	RC-EZY476AF1A	47 μF, 16V	AB
C18	RC-EZA106AF1C	10 μF, 16V	AB
C34	RC-EZA107AF1A	100 μF, 10V	AB
C35	RC-EZA475AF1E	4.7 μF, 25V	AB
C44	RC-EZA476AF1A	47 μF, 10V	AB
C65	RC-EZA476AF1A	47 μF, 10V	AB
C72	RC-EZA106AF1C	10 μF, 16V	AB
C80	RC-EZA105AF1H	1 μF, 50V	AB
C84	RC-EZA474AF1H	0.47 μF, 50V	AB
C85	RC-EZA474AF1H	0.47 μF, 50V	AB
C91	RC-EZA104AF1H	0.1 μF, 50V	AB
C92	RC-EZA104AF1H	0.1 μF, 50V	AB
C113	RC-EZA475AF1E	4.7 μF, 25V	AB
C121	RC-EZA106AF1C	10 μF, 16V	AB
C122	RC-EZY106AF1C	10 μF, 16V	AB
C127	RC-EZA104AF1H	0.1 μF, 50V	AB
C128	RC-EZA104AF1H	0.1 μF, 50V	AB
C142	RC-EZA106AF1C	10 μF, 16V	AB
C143	RC-EZA334AF1H	0.33 μF, 50V	AB
C145	RC-EZY476AF1A	47 μF, 16V	AB
C147	RC-EZA107AF1A	100 μF, 10V	AB
C149	RC-GZV477AF1C	470 μF, 16V	AC
C181	RC-EZA105AF1H	1 μF, 50V	AB
C182	RC-EZA105AF1H	1 μF, 50V	AB
C185	RC-EZA476AF1A	47 μF, 10V	AB
C186	RC-EZA476AF1A	47 μF, 10V	AB
C187	RC-EZA107AF1A	100 μF, 10V	AB
C188	RC-EZA107AF1A	100 μF, 10V	AB
C189	RC-EZ1268AFZZ	330 μF, 10V	AB
C190	RC-EZ1268AFZZ	330 μF, 10V	AB
C193	RC-EZA107AF1C	100 μF, 16V	AB
C305	RC-EZA476AF1A	47 μF, 10V	AB
C306	RC-EZA107AF1A	100 μF, 10V	AB
C308	RC-EZ1267AFZZ	2200 μF, 16V	AE
C310	RC-EZA107AF1C	100 μF, 16V	AB
C414	RC-EZA475AF1E	4.7 μF, 25V	AB

CAPACITORS

There are two types of capacitors available and they can be identified from each other by reading their Part Numbers.

- Ceramic type capacitor;
  A symbol "C" or "K" is given at the 3rd digit of its Part Number like "VCC(or K)●●●●●●J."
- Semiconductor type capacitor;
  A symbol "T" is given at the 3rd digit of its Part Number like "VCT●●●●●●J."

The capacitance error of each capacitor is indicated by the symbol given at the 13th digit of the Part Number as follows: "J" (±5%), "K" (±10%), "M" (±20%), "N" (±30%), "C" (±0.25 pF), "D" (±0.5 pF), "Z" (+80−20%).

REF.NO.	PART NO.	DESCRIPTION	CODE
C1	VCCCPA1HH180J	18 pF(CH), 50V	AA
C2	VCCCPA1HH200J	20 pF(CH), 50V	AA
C4	VCCCPA1HH150J	15 pF(CH), 50V	AA
C5	VCCCPA1HH100D	10 pF(CH), 50V	AA
C7	VCCCPA1HH150J	15 pF(CH), 50V	AA
C8	VCCCPA1HH2R0C	2 pF(CH), 50V	AA
C9	VCTYPA1EX472M	0.0047 μF, 25V	AA
C10	VCKZPA1HF223Z	0.022 μF, 50V	AA
C11	VCTYPA1EX472M	0.0047 μF, 25V	AA
C12	VCTYPA1EX103M	0.01 μF, 25V	AA
C14	VCTYPA1EX472M	0.0047 μF, 25V	AA
C15	VCKZPA1HF223Z	0.022 μF, 50V	AA
C17	VCKZPA1HF223Z	0.022 μF, 50V	AA
C31	VCKZPA1HF223Z	0.022 μF, 50V	AA
C36	VCCSPA1HL470J	47 pF, 50V	AA
C38	VCTYPA1EX223M	0.022 μF, 25V	AA
C39	VCTYPA1EX223M	0.022 μF, 25V	AA
C40	VCKZPA1HF223Z	0.022 μF, 50V	AA
C43	VCKYPA1HB221K	220 pF, 50V	AA
C45	VCKZPA1HF223Z	0.022 μF, 50V	AA
C51	VCKZPA1HF223Z	0.022 μF, 50V	AA
C54	VCCCPA1HH5R0C	5 pF(CH), 50V	AA
C57	VCCCPA1HH100D	10 pF(CH), 50V	AA
C58	VCCCPA1HH5R0C	5 pF(CH), 50V	AA
C59	VCCCPA1HH8R0D	8 pF(CH), 50V	AA
C61	VCKZPA1HF223Z	0.022 μF, 50V	AA
C62	VCQSMV1HL361J	360 pF, 50V, Styrol	AB
C63	VCTYAT1HV152K	0.0015 μF, 50V	AA
C64	VCTYAT1HV472K	0.0047 μF, 50V	AA
C73	VCTYPA1EX473M	0.047 μF, 25V	AA
C74	VCTYPA1EX223M	0.022 μF, 25V	AA
C75	VCTYPA1EX223M	0.022 μF, 25V	AA
C86	VCQSMA1HL102J	0.001 μF, 50V, Styrol	AB
C87	VCTYPA1EX472M	0.0047 μF, 25V	AA
C105	VCKYPA1HB102K	0.001 μF, 50V	AA
C106	VCKYPA1HB102K	0.001 μF, 50V	AA
C109	VCKYPA1HB221K	220 pF, 50V	AA
C110	VCKYPA1HB221K	220 pF, 50V	AA
C111	VCTYPA1EX103M	0.01 μF, 25V	AA
C112	VCTYPA1EX103M	0.01 μF, 25V	AA
C115	VCCSPA1HL470J	47 pF, 50V	AA
C116	VCCSPA1HL470J	47 pF, 50V	AA
C117	VCTYPA1EX223M	0.022 μF, 25V	AA
C118	VCTYPA1EX223M	0.022 μF, 25V	AA
C125	VCTYPA1EX472M	0.0047 μF, 25V	AA
C126	VCTYPA1EX472M	0.0047 μF, 25V	AA
C129	VCKYPA1HB152K	0.0015 μF, 50V	AA
C130	VCKYPA1HB152K	0.0015 μF, 50V	AA
C132	VCTYPA1EX223M	0.022 μF, 25V	AA
C133	VCTYPA1EX223M	0.022 μF, 25V	AA
C134	VCTYPA1EX223M	0.022 μF, 25V	AA
C151	VCKYPA1HB181K	180 pF, 50V	AA
C152	VCKYPA1HB181K	180 pF, 50V	AA
C167	VCTYPA1EX473M	0.047 μF, 25V	AA
C168	VCTYPA1EX473M	0.047 μF, 25V	AA
C169	VCKYPA1HB272K	0.0027 μF, 50V	AA
C170	VCKYPA1HB272K	0.0027 μF, 50V	AA
C171	VCTYPA1CX683M	0.068 μF, 16V	AA
C172	VCTYPA1CX683M	0.068 μF, 16V	AA
C183	VCKYPA1HB221K	220 pF, 50V	AA
C184	VCKYPA1HB221K	220 pF, 50V	AA
C191	RC-QZA184AFYK	18 μF, 25V, Mylar	AC
C192	RC-QZA184AFYK	18 μF, 25V, Mylar	AC
△ C301	VCKYPA1HB102K	0.001 μF, 50V	AA
△ C302	VCKZPA1HF473Z	0.047 μF, 50V	AA
△ C303	VCKYPA1HB102K	0.001 μF, 50V	AA
△ C304	VCKZPA1HF473Z	0.047 μF, 50V	AA
C307	VCKZPA1HF223Z	0.022 μF, 50V	AA
C309	VCKZPA1HF223Z	0.022 μF, 50V	AA
C311	VCKYPA1HB272K	0.0027 μF, 50V	AA

RESISTORS

(Unless otherwise specified, resistors are 1/6W, ±5%, carbon type.)

REF.NO.	PART NO.	DESCRIPTION	CODE
R11	VRD-ST2CD391J	390 ohms	AA
R12	VRD-ST2CD122J	1.2 kohms	AA
R13	VRD-ST2CD221J	220 ohms	AA
R16	VRD-ST2CD822J	8.2 kohms	AA
R17	VRD-ST2CD824J	820 kohms	AA
R31	VRD-ST2CD331J	330 ohms	AA
R36	VRD-ST2CD222J	2.2 kohms	AA
R37	VRD-ST2CD471J	470 ohms	AA
R42	VRD-ST2CD272J	2.7 kohms	AA
R44	VRD-ST2CD680J	68 ohms	AA
R50	VRD-ST2CD330J	33 ohms	AA
R55	VRD-ST2CD101J	100 ohm	AA
R72	VRD-ST2CD122J	1.2 kohms	AA
R74	VRD-ST2CD392J	3.9 kohms	AA
R75	VRD-ST2CD392J	3.9 kohms	AA
R76	VRD-ST2CD561J	560 ohms	AA
R78	VRD-ST2CD561J	560 ohms	AA
R79	VRD-ST2CD103J	10 kohm	AA
R85	VRD-ST2CD102J	1 kohm	AA
R86	VRD-ST2CD912J	9.1 kohms	AA
R101	VRD-ST2CD822J	8.2 kohms	AA
R102	VRD-ST2CD822J	8.2 kohms	AA
R103	VRD-ST2CD820J	82 ohms	AA
R104	VRD-ST2CD820J	82 ohms	AA
R109	VRD-ST2CD122J	1.2 kohms	AA
R110	VRD-ST2EE122J	1.2 kohms, 1/4W, ±5%	AA
R115	VRD-ST2CD274J	270 kohms	AA
R116	VRD-ST2CD274J	270 kohms	AA
R119	VRD-ST2CD822J	8.2 kohms	AA
R120	VRD-ST2CD822J	8.2 kohms	AA
R121	VRD-ST2CD820J	82 ohms	AA
R122	VRD-ST2CD820J	82 ohms	AA
R123	VRD-ST2CD563J	56 kohms	AA
R124	VRD-ST2CD563J	56 kohms	AA
R129	VRD-ST2CD153J	15 kohms	AA
R130	VRD-ST2CD153J	15 kohms	AA
R131	VRD-ST2CD153J	15 kohms	AA
R132	VRD-ST2CD153J	15 kohms	AA
R133	VRD-ST2CD102J	1 kohm	AA
R134	VRD-ST2CD102J	1 kohm	AA
R135	VRD-ST2CD332J	3.3 kohms	AA
R136	VRD-ST2CD332J	3.3 kohms	AA
R141	VRD-ST2CD561J	560 ohms	AA
R142	VRD-ST2CD102J	1 kohm	AA
R143	VRD-ST2CD102J	1 kohm	AA
R145	VRD-ST2CD222J	2.2 kohms	AA
R146	VRD-ST2CD105J	1 Mohm	AA
R148	VRD-ST2CD103J	10 kohm	AA
R149	VRD-ST2EE560J	56 ohms, 1/4W, ±5%	AA
R150	VRD-ST2CD102J	1 kohm	AA

REF.NO.	PART NO.	DESCRIPTION	CODE
R161	VRD-ST2CD472J	4.7 kohms	AA
R162	VRD-ST2CD472J	4.7 kohms	AA
R165	VRD-ST2CD101J	100 ohm	AA
R166	VRD-ST2EE101J	100 ohm, 1/4W, ±5%	AA
R167	VRD-ST2CD472J	4.7 kohms	AA
R168	VRD-ST2CD472J	4.7 kohms	AA
R171	VRD-ST2CD562J	5.6 kohms	AA
R172	VRD-ST2CD562J	5.6 kohms	AA
R185	VRD-ST2CD820J	82 ohms	AA
R186	VRD-ST2CD820J	82 ohms	AA
R189	VRD-ST2CD101J	100 ohm	AA
R190	VRD-ST2CD101J	100 ohm	AA
R305	VRD-ST2CD681J	680 ohms	AA
R306	VRD-ST2CD102J	1 kohm	AA

CIRCUIT PARTS

CNS101	QCNW-2454AFZZ	5Pin Socket Assembly	AF
CNS102	QCNW-2455AFZZ	7Pin Socket Assembly	AF
CNS103	QCNW-3266AFZZ	3Pin Socket Assembly	AD
CNP101	QCNCM586EAFZZ	Plug, 5Pin	AB
CNP102	QCNCM588GAFZZ	Plug, 7Pin	AB
CNP103	QCNCM584CAFZZ	Plug, 3Pin	AA
J101	QJAKE0124AFZZ	External Microphone Jack (Right)	AC
J102	QJAKE0124AFZZ	External Microphone Jack (Right)	AC
J103	QJAKJ0145AFZZ	Headphones Jack	AF
MO201	RMōTV0165AFZZ	Motor	AT
⚠SO301	QSōCE0595AFZZ	Selector Switch	AG
SP1	VSP0090P-12SA	Speaker	AN
SP2	VSP0090P-12SA	Speaker	AN
SW1	QSW-B0183AFZZ	Switch, Slide Type	AM
SW2	QSW-P0621AFZZ	Switch, Push Type	AE
SW101	QSW-P0620AFZZ	Switch, Push Type	AG
SW102	QSW-S0430AFZZ	Switch, Slide Type	AF

MECHANICAL PARTS

1	94R180001501	Main Shassis Assembly	—
2	94R15100202	Lever, Record/Playback Selector	AC
3	94R18000201	Lever, Erase Prevention	AC
6	94R18000306	Sub-Chassis	AD
7	94R18000305	Head Base	AD
8	94R180003305	Lever, Auto Stop Sensor	AD
9	94R14400315	Spring, Head Azimuth	AB
10	94R18000307	Spring, Over Stroke	AB
11	94R180001404	Spring, Cue/Revew	AC
12	94R180004305	Pinch Roller Assembly	AG
13	94R18000405	Spring, Pinch Roller	AC
14	94R17152015	Stop Washer, Pinch Roller	AC
18	94R180006314	Roller, Fast Forward/Rewind Assembly	AK
19	94R180006504	Lever, Playback Idler	AE
20	94R18000635	Idler, Playback	AE
21	94R18000608	Spring, Playback Idler	AC
22	94R18000609	Spacer, Playback Idler	AB
24	94R18000610	Gear, Fast Forward	AD
26	94R180007317	Flywheel Assembly	AK
27	94R180000726	Bracket, Flywheel	AE
28	94R12000906	Bracket, Flywheel	AB
29	94R18000707	Spring, Flywheel	AC
31	94R180005303	Turntalble, Take-Up Assembly	AG
32	94R18000508	Spring, Take-Up Turntable	AB
34	94R180005302	Turntable, Supply Assembly	AG
35	94R18000507	Spring, Supply Turntable	AB
37	94R18001005	Bracket, Motor	AD
39	94R18001010	Belt, Motor Drive	AG
40	94R5880910	Cushion, Motor	AB
41	94R12001201	Screw, Motor	AB
43	94R5630902	Cushion, Vibration Prevention	AC
46	94R18001114A	Lever, Cassette Holder Release	AC
47	94R18001123	Spring, Cassette Holder Release Lever	AB
48	94R15101103	Spacer, Cassette Holder Release Lever	AA
50	94R18000934	Chassis, Button Operation Lever (Right)	AF
51	94R18000935	Chassis, Button Operation Lever (Left)	AF
52	94R180009501	Lever, Pause Lock Assembly	AE
53	94R18000909	Lever, Stop/Eject	AC
54	94R18000941	Lever, Fast Forward	AD
55	94R18000942	Lever, Rewind	AD
56	94R18000940	Lever, Playback	AC
57	94R18000902	Lever, Record	AC
58	94R18000903	Spring, Record/Playback/ Stop Lever	AC
59	94R18000905	Spring, Rewind Lever	AC
60	94R18000907	Spring, Fast Forward Lever	AC
61	94R18000957	Spring, Pause Lock Lever	AC
62	94R180009334	Lever, Button Lock Assembly	AD
63	94R180009348	Spring, Button Lock Lever	AB
64	94R17000920	Shaft, Button Lock Lever (Left)	AB
65	94R18000917	Shaft, Button Lock Lever (Right)	AC
66	94R18000952	Lever, Record Joint	AB
67	94R12221702	Lever, Pause Lock Selector	AC
68	94R180009118	Spring, Pause Lock Selector Lever	AC
69	94R18201032	Stop Washer, Pause Lock Selector Lever	AA
71	94R17000107	Spring, Cassette Pressure	AC
73	94R18001406	Lever, Switch Joint	AC
74	94R18001412	Lever, Timing	AC
75	94R18001402	Lever, Panel Return	AC
76	94R18001407	Spring, Panel Return Lever	AB
77	94R18001411	Lever, Cue/Revew Arm	AC
79	94R18200312	Spring, Timing Lever	AA
80	94R91810000	Screw, ϕ2 × 5mm	AA
81	94R90770000	Screw, ϕ2 × 4mm	AA
82	94R91800000	Screw, Taptite, ϕ2 × 4mm	AA
83	94R90390000	Screw, ϕ2.6 × 5mm	AA
84	94R92120000	Screw, ϕ2 × 7mm	AA
85	94R98200000	Screw, ϕ2 × 7mm	AA
86	94R98210000	Screw, ϕ2 × 8mm	AA
87	94R91910000	Screw, ϕ2 × 4mm	AA
88	94R96610000	Screw, ϕ2 × 5mm	AA
90	94R97170000	Screw, ϕ2 × 9mm	AA
91	94R93330000	Washer, ϕ2.4 × ϕ7 × 0.2mm	AA
92	94R97930000	Washer, ϕ1.6 × ϕ3.4 × 0.3mm	AA
93	94R94210000	Washer, ϕ1.2 × ϕ3 × 0.25mm	AA
94	94R93120000	Washer, ϕ2.1 × ϕ5 × 0.5mm	AA
95	94R93610000	Washer, ϕ1.55 × ϕ5 × 0.5mm	AA
96	94R97760000	Washer, ϕ1.85 × ϕ5 × 0.5mm	AA
97	94R97180000	Special Screw, ϕ3.3 × 4mm	AA
98	94R98610000	Special Screw, ϕ2.5 × 6mm	AA
99	94R17001202	Special Screw, ϕ2 × 3mm	AA
100	94R97930000	Washer, ϕ1.6 x ϕ3.4 x 0.4mm	AA

REF.NO.	PART NO.	DESCRIPTION	CODE
101	JKNBM0554AFSC	Button, Mechanism	AB
105	RHEDA0102AFZZ	Head, Erase	AE
106	RHEDH0136AFZZ	Head, Record/Playback	AM
	CABINET PARTS		
201	GCAB-1425AFSB	Front Cabinet Assembly (W)	AW
201	GCAB-1425AFSA	Front Cabinet Assembly (R)	AW
201-1	————	Front Cabinet	—
201-2	————	Punching Metal, Speaker (Right)	—
201-3	————	Punching Metal, Speaker (Left)	—
202	GCAB-1424AFSA	Rear Cabinet Assembly	AR
202-1	————	Rear Cabinet	—
202-2	HiNDM1632AFSA	Decoration Plate, Upper	AK
203	LHLDF1345AFZZ	Frame	AH
204	GFTAC1512AFSC	Cassette Holder	AK
205	HSSND0360AFSA	Pointer	AB
206	HPNLD1249AFSA	Plate, Dial Scale	AH
207	HDECP0331AFSA	Transparent Plate, Cassette Holder	AH
211	MSPRC0558AFFJ	Spring, Battery Terminal (+,−)	AD
212	QTANB0169AFFW	Terminal, Battery (+)	AB
213	MSPRC0479AFFW	Spring, Battery Terminal (+,−)	AC
214	CSPRT0750AF15	Spring, Dial Stringing Assembly	AD
215	MSPRD0659AFFJ	Spring, Cassette Holder	AC
216	MSFTD0198AFFW	Shaft, Tuning	AC
217	KCōUB0171AFZZ	Tape Counter	AH
218	NBLTK0302AFZZ	Belt, Counter	AB
219	GFTAB1143AFSC	Lid, Battery Compartment	AC
220	JHNDP3059AFSB	Handle, (W)	AM
220	JHNDP3059AFSA	Handle, (R)	AM
221	JKNBK0296AFSB	Knob, Volume/Tone/Balance Control	AD
222	JKNBK0281AFSB	Knob, FM Mode/Function	AD
223	JKNBN0532AFSA	Knob, Tuning Control	AF
225	JKNBK0287AFSB	Knob, Band Selector	AE
226	LANGK0282AFZZ	Bracket, Speaker Retaining	AA
227	NDRM-0185AFZZ	Drum, Dial Stringing	AC
228	PCUSU0304AFZZ	Cushion, Built-In Microphone	AA
229	MLiFP0034AFZZ	Damper	AC
230	NPLYB0050AFZZ	Pulley, Dial Stringing	AA
231	NPLYD0052AFZZ	Pulley, Dial Stringing	AB
232	QANTR0112AFZZ	Rod Antenna	AN
233	RMiCC0091AFZZ	Built-In Microphone	AF
235	QTANZ0185AFFW	Terminal, FM Telescopic Rod Antenna	AB
236	PRDAR0344AFFW	Heat Sink	AC
237	QCNW-2452AFZZ	Wire with Tip	AC
240	MSPRD0670AFFJ	Spring, Record/Playback Selector	AB
241	PFLT-0664AF00	Felt, Knob Band	AB
242	LHLDW9003CEZZ	Wire Holder	AA
243	GCōVH1187AFSi	Cover, AC Power Supply Socket (W)	AB
243	GCōVH1187AFSH	Cover, AC Power Supply Socket (R)	AB
249	JKNBN0533AFSA	Knob, Fine Tuning	AF
250	HiNDP1311AFSA	Label, Specification, (W)	AC
250	HiNDP1310AFSA	Label, Specification, (R)	AC
251	TCAUA0178AFZZ	Caution Label, AC Power Supply	AA
601	XHBSD30P06000	Screw, ϕ3 × 6mm	AA
602	XCBSD30P10000	Screw, ϕ3 × 10mm	AA
603	XCBSD30P08000	Screw, ϕ3 × 8mm	AA
604	XCBSD30P12000	Screw, ϕ3 × 12mm	AA
605	XCBSD30P20000	Screw, ϕ3 × 20mm	AA
606	LX-CZ0029AF00	**Screw, ϕ3 x 65mm**	AA
607	XBPSD26P08000	Screw, ϕ2.6 × 8mm	AA
608	LX-JZ0065AFFD	Taptite Screw, ϕ3 × 13mm	AB
609	XRESJ30-06000	Ring, "E" Type, ϕ3mm	AA
610	LX-WZ7056AFZZ	Washer ϕ3 × ϕ10 × 0.5mm	AA
611	LX-BZ0345AFFF	Screw, ϕ2 × 11mm	AF
612	XNEBN20-12000	Wascher, ϕ2 × 1.2mm	AA
	ACCESSORIES/PACKING PARTS		
	SPAKA1436AFZZ	Packing Add. Right	AE
	SPAKA1437AFZZ	Packing Add. Left	AE
	SPAKC3452AFZZ	Packing Case, (W)	AK
	SPAKC3451AFZZ	Packing Case, (R)	AK
	SPAKP0602AFZZ	Polyethylene Bag, Unit	AB
	SSAKA0021AFZZ	Polyethylene Bag, Operation Manual	AA
△	QACCZ0059AF00	AC Power Supply Cord	AG
△	QACCZ0060AF00	AC Power Supply Cord	AK
△	QPLGA0253AFZZ	**AC Plug Adapter**	AE
	RTPEK0101AFZZ	Cassette Tape	AK
	TiNSZ0803AFZZ	Operation Manual	AG
	TLABZ0726AFZZ	Label, Characterization	AD
	UBATU0010AGZZ	Battery	AC

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